carried out at the local level, state governments can encourage land use controls in combination with other measures to protect ground water. The effectiveness of land use controls is limited by preexisting development. Therefore, land use controls should be implemented at early stages for vulnerable undeveloped areas. Although information on land use conditions is important, it is neither necessary nor possible to have sufficient data to answer all concerns before enactment of protective ordinances. These controls can be revised as new data are gathered.

[mplementation of Ground Water Protection Programs

Successful ground water protection programs require adequate legal authority and substantial funding for planning and design as well as implementation. Other factors affecting the successful implementation of ground water protection programs include the tractability of the problem, the size Df the target group whose behavior is to be changed, the extent of behavioral change required, the degree of integration within and among implementing institutions, the amount of media attention directed toward the problem, and the commitment and leadership skills of implementing officials. The committee would have liked to go into further detail concerning the difficulties that may be involved in the eventual implementation of policies designed to protect ground water, but due to time limitations the members x)uld discuss only a limited number of these issues. Many of the more attrac-:ive programs examined—for example, California, Long Island, New York, and Cape Cod, Massachusetts—have benefited from past federal support mder Sections 106 and 208 of the Clean Water Act and the Safe Drinking iVaterAct.

- The committee recommends that the federal government provide financial lupport for development and implementation of state- or basin-level programs m the condition that within a specific time period the states are committed to levelop self-supporting ground water management programs.
- Long-term program success requires adequate and continuing funding. This is necessary to maintain a strong regulatory surveillance and enforcement jffort with substantial information collection and analytical support. States hould consider a variety of funding mechanisms including user and disposal ees as well as general revenues for program support.
- States should play a key role in expanding the number of well-trained hy-Irogeologists by providing more support of hydrogeologic programs within the iniversities and colleges.
- The federal government should also provide technical support to state and ocal governments through research on health and environmental effects of